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# THE INDUSTRIAL ARTS INDEX

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SECOND ANNUAL CUMULATION

SUBJECT INDEX TO A SELECTED LIST OF  
ENGINEERING AND TRADE PERIODICALS  
FOR 1914

EDITED BY  
MARION E. POTTER AND LOUISE D. TEICH

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THE H. W. WILSON COMPANY  
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1914



# Industrial Arts Index

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This issue of the *Industrial Arts Index* is the annual number for 1914. The best service to our subscribers required that this number be issued in December, altho the early date prevented the including of most of the December magazines. Those that were received prior to December 3 are here indexed.

## Technical Journals

At a convention of the Federation of Trade Press Associations, held in Chicago last September, John W. Alvord, consulting engineer of Chicago, submitted an interesting paper on the use of the technical journal. It is not necessary to dwell on the portion of his paper that speaks of the value of the trade paper. No wide-awake engineer need be told to read the best periodicals of his profession. The problem that the wisest engineers seem unable to solve is how to make their reading, or the really valuable part of it, available for future reference.

Mr. Alvord suggests that several courses are open. "First, the engineer may rely on his memory and the published index to his bound volumes. It is safe to say, however, that few engineers really make much practical use of this method. The intervening index and the bother of a search prove to be discouraging to that degree that a proposed reference search is abandoned in about one-half the suggested attempts. The ideal filing system is one in which, with the least amount of effort, one can put his hand immediately and accurately on the thing itself, be it a book, pamphlet, or a data sheet.

"Second, he may keep a special card index of important data and reference to valuable articles. This at once involves labor and attention which few busy men can give, and which, if done by assistants or librarians, largely loses its personal value to the one who needs it. The same objection as to the discouraging effect of intervening indexes holds good here, too, and it is further safe to say that of all the contrivances for indexing the most difficult to handle readily and examine rapidly is the card index system.

"Third, he may abstract important data in a limited way on loose-leaf transparent paper, standard letter-size, and he may remove or detach articles of special value from out his journals, to be filed in regular office file system, like correspondence.

"The writer has tried all of the above methods at considerable cost in time and patience, and has, for many years, settled upon the third method. With all its admitted limitations it seems to be the best for an office which is expected to find out information on a great variety of subjects in a limited time, and with the least amount of effort."

Mr. Alvord admits that all three courses are costly in time and patience, and in the end unsatisfactory. And yet it is certainly a greater waste to spend money on a file of magazines that contain much valuable material, and to spend time in reading them, and yet have all this material absolutely unavailable when it is particularly needed. A printed index to these magazines is without question the most convenient and economical way of making this literature accessible. It takes up much less space, and is far more readily consulted than other indexes. An index like the *Industrial Arts Index* contains, moreover, references to many more periodicals than would be found in the private collection of any one engineer. This additional material may be obtained at a public library, or purchased at small cost. It is true that an index covering all kinds of engineering cannot be made to satisfy completely each particular specialist, but users of the *Index* may help to make it more nearly what they want it to be if they will make known to the publishers their particular needs.

As to the comparative cost of making a card catalog and buying a printed index, the printed list is so much cheaper that one wonders how the card catalog survives at all. It is estimated that the cost of cataloging books in libraries is about 15 cents for a single card, or about \$150 a thousand. The entries in the *Industrial Arts Index* cost the subscriber about 70 cents a thousand. There might, of course, be some co-operative arrangement by which cards should be printed for a group of libraries—a service similar to that furnished by the Library of Congress. But this would also be expensive. Even with the

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## NOTES AND ANNOUNCEMENTS

large subscription list of the Library of Congress, the cards cost the subscribers from \$12 to \$20 a thousand cards. Moreover, this is only the initial expense, since the writing of the subject headings on the cards and alphabetizing and storing them adds materially to the cost. This expense might be justified if the card catalog were the best way of making information available, but, as Mr. Alvord says, the card index system, of all the contrivances for indexing, is the most difficult to handle readily and examine rapidly.

### Trade Journal Standards

The engineering periodicals frequently contain articles on standardization. Even advertising catalogs have not escaped the demand for standardizing. The periodicals themselves alone seem exempt from any law of uniformity. Yet the trade paper is a valuable tool, and nothing that may increase its usefulness is unimportant. The valuable contents of *The Engineer*, for instance, would be much more valuable if it were printed in a more convenient size and on less crumpled paper. The subscribers of the *Engineering Record* would no doubt continue to send in their subscriptions if it were a double-elephant folio, but if they were required to vote on the matter it is safe to say that the quarto or octavo size would win an easy victory.

A reader frequently desires to consult a table of contents. In many instances this requires a search thru the whole magazine, so that the table utterly fails of its purpose. Most readers would much rather have no table of contents at all, than have it provok-

ingly hidden between advertising pages or in the middle of the magazine. A book that had its table of contents elsewhere than in the front would be considered very cheap and amateurish in its make-up. What would one think of a shop manager who should make a key in order to open the door to a shorter route and then hide the key without unlocking it. Better far take the longer route in the first place. The things that are made for a useful purpose, that are capable of serving that purpose and then "won't work," are always the most execrable.

No less exasperating is a search through a large magazine to find who publishes it, how often it is published and the price. This information should without question be on the very first page of reading matter. Uniformity of paging is also much to be desired. Some publishers of periodicals page each number separately, thereby confessing that they do not consider their work worth preserving in a cover as an annual volume. One magazine indexed in the *Industrial Arts Index*, the *Textile World*, pages each number separately and in addition gives the volume paging in the inside edge, where it escapes notice unless the magazine is opened completely. Perhaps it is better that this double pagination should escape notice as it is certainly confusing.

There is undoubtedly a best way of making up a magazine, and in these days of "efficiency," the best way ought to be found and followed. But better a second best system with uniformity than a variety of confusing practices, wasteful of both the time and the patience of the reader.

# List of Periodicals Indexed

- Am Chem Soc J**—Journal of the American Chemical Society. \$6. Charles L. Parsons, sec., Box 505, Washington, D. C.
- Am Eng**—American Engineer. See Ry Age (Mech ed).
- ✓ **Am For**—American Forestry. \$2; single numbers 20c. American Forestry Assn., 1410 H St, N. W., Washington, D. C.
- Am Gas Light J**—American Gas Light Journal. \$3; single numbers 10c. American Gas Light Journal, 42 Pine St, New York.
- Am Ind**—American Industries. \$1; single numbers 10c. National Manufacturers Co., 30 Church St, New York.
- Am Inst Arch J**—Journal of the American Institute of Architects. \$5; single numbers 50c. American Institute of Architects, The Octagon, Washington, D. C.
- Am Inst E E Pro**—American Institute of Electrical Engineers. Proceedings. \$10; single numbers \$1. F. L. Hutchinson, sec., 33 W 39th St, New York.
- Am Inst Min E Bul**—Bulletin of the American Institute of Mining Engineers. subs. \$10; single numbers \$1; to members, public libraries, and educational institutions, \$5; single numbers 50c. B. Stoughton, sec., 29 W 39th St, New York.
- Am Soc M E J**—Journal of the American Society of Mechanical Engineers. \$3; single numbers 35c. American Society of Mechanical Engineers, 29 W 29th St, New York.
- Am Water Works Assn J**—Journal of the American Water Works Association. American Water Works Assn., 2419 Greenmount Av, Baltimore, Md.
- Arch & Bldg**—Architecture and Building. \$2; single numbers 20c. William T. Comstock Co., 23 Warren St, New York.
- ✓ **Arch Rec**—Architectural Record. \$3; single numbers 35c. Architectural Record Co., 115 W 40th St, New York.
- Assn Eng Soc J**—Journal of the Association of Engineering Societies. \$3; single numbers 30c. Association of Engineering Societies, J. W. Peters, sec., 3817 Olive St, St. Louis, Mo.
- ✓ **Automobile**—Automobile. \$3; single numbers 10c. Class Journal Co., 231 W 39th St, New York.
- Bldg Age**—Building Age. \$2; single numbers 20c. David Williams Co., 239 W 39th St, New York.
- ✓ **Brickb**—Brickbuilder. \$5; single numbers 50c. Rogers & Manson Co., 85 Water St, Boston.
- Colliery**—Colliery Engineer. \$2; single numbers 25c. International Textbook Co., Scranton, Pa.
- ✓ **Concrete Cem**—Concrete-Cement Age. \$1.50; single numbers 15c. Concrete-Cement Age Pub. Co., 97 West Fort St, Detroit, Mich.
- Dom Eng**—Domestic Engineering. \$2; single numbers 10c. Domestic Engineering Co., 445-417 Plymouth Court, Chicago.
- Econ Geol**—Economic Geology. \$3; single numbers 50c. Economic Geology Pub. Co., 41 North Queen St, Lancaster, Pa.
- Elec Ry J**—Electric Railway Journal. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St, New York.
- Elec R & W Elec'n**—Electrical Review and Western Electrician. \$3; single numbers 10c. Electrical Review Pub. Co., 608 S Dearborn St, Chicago.
- ✓ **Elec W**—Electrical World. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St, New York.
- Engineer**—Engineer. Thick paper ed £2 6d; Canadian subs £1 16s; thin paper ed £1 16s; Canadian subs £1 11s 6d. Engineer, 33 Norfolk St, Strand, London, W. C.
- Eng & Contr**—Engineering and Contracting. \$2. Myron C. Clark Pub. Co., 608 S Dearborn St, Chicago.
- Eng & Min J**—Engineering and Mining Journal. \$5; single numbers 15c. Hill Pub. Co., 10th Av at 36th St, New York.
- ✓ **Eng M**—Engineering Magazine. \$3; single numbers 25c. Engineering Magazine Co., 140 Nassau St, New York.
- ✓ **Eng N**—Engineering News. \$5; single numbers 15c. Hill Pub. Co., 10th Av at 36th St, New York.
- ✓ **Eng Rec**—Engineering Record. \$3; single numbers 10c. McGraw Pub. Co., 239 W 39th St, New York.
- Eng Soc W Pa**—Proceedings of the Engineers' Society of Western Pennsylvania. \$5; single numbers 50c. Engineers' Society of Western Pennsylvania, 2511 Oliver Bldg, Pittsburgh, Pa.
- ✓ **Foundry**—Foundry. \$1; single numbers 15c. Penton Pub. Co., Penton Bldg, Cleveland, O.
- Gen Elec R**—General Electric Review. \$2; single numbers 20c. General Electric Co., Schenectady, N. Y.
- Good Roads n s**—Good Roads new series. \$2; single numbers 5c except first numbers of each month 10c. E. L. Powers Co., 150 Nassau St, New York.
- ✓ **Heat & Ven**—Heating and Ventilating Magazine. \$1; single numbers 10c. Heating & Ventilating Magazine Co., 1123 Broadway, New York.
- ✓ **Horseless Age**—Horseless Age. \$2; single numbers 10c. Horseless Age Co., 250 W 54th St, New York.
- Ill U Eng Exp Sta Bul**—Illinois University Engineering Experiment Station. Bulletin. Univ. of Ill., Urbana.
- Illum Engr**—Illuminating Engineer. 10s 6d; single numbers 1s. Illuminating Engineering Pub. Co., 32 Victoria St, London, S. W.
- Illum Eng Soc**—Transactions of the Illuminating Engineering Society. \$5; single numbers 75c. Illuminating Engineering Soc., 29 W 39th St, New York.
- ✓ **Ind Eng**—Industrial Engineering and Engineering Digest. \$2; single numbers 20c. Technical Literature Co., 120 W 32d St, New York.
- Inland Ptr**—Inland Printer. \$3; single numbers 30c. Inland Printer Co., 632 Sherman St, Chicago.
- Int Marine Eng**—International Marine Engineering. \$2. Aldrich Pub. Co., 17 Battery Place, New York.
- ✓ **Iron Age**—Iron Age. \$5; single numbers 20c. David Williams Co., 239 W 39th St, New York.
- Iron Tr R**—Iron Trade Review. \$4; single numbers 15c. Penton Pub. Co., Penton Bldg., Cleveland, O.
- J Account**—Journal of Accountancy. \$3; single numbers 30c. Ronald Press Co., 20 Vesey St, New York.
- J Fr Inst**—Journal of the Franklin Institute. \$5; single numbers 50c. Franklin Institute, Philadelphia.
- J Ind & Eng Chem**—Journal of Industrial and Engineering Chemistry. \$6. American Chemical Society, Easton, Pa.
- Locomotive**—Locomotive. 50c; single numbers gratis; recent bound volumes \$1. Hartford Steam Boiler Inspection & Insurance Co., Hartford, Conn.
- ✓ **Mach**—Machinery. Engineering edition \$2; coated pa. \$2.50; single numbers 20c. Industrial Press, 140 Lafayette St, New York.
- Met & Chem Eng**—Metallurgical and Chemical Engineering. \$2; single numbers 25c. McGraw Pub. Co., 239 W 39th St, New York.
- Metal Ind n s**—Metal Industry new series. \$1; single numbers 10c. Metal Industry, 99 John St, New York.

## LIST OF PERIODICALS INDEXED

**Metal Work**—Metal Worker, Plumber & Steam Fitter. \$2; single numbers 10c. David Williams Co., 239 W 39th St, New York.

**Munic Eng**—Municipal Engineering. \$2; single numbers 25c. Engineering Pub. Co., Indianapolis, Ind.

**Munic J**—Municipal Journal. \$3; single numbers 10c; special numbers 25c. Municipal Journal and Engineer, Inc., 50 Union Square, New York.

**Power**—Power. \$2; single numbers 5c. Hill Pub. Co., 10th Av at 36th St, New York.

**Ry Age**—Railway Age Gazette. \$5; single numbers 15c. Simmons-Boardman Pub. Co., Woolworth Bldg, New York.

**Ry Age (Mech ed)**—Railway Age Gazette, mechanical edition including the American Engineer. \$2; single numbers 20c. Simmons-Boardman Pub. Co., Woolworth Bldg, New York.

**Ry R**—Railway Review. \$4; single numbers 15c. Railway Review, 1407 Ellsworth Bldg, Chicago; 30 Church St, New York.  
Formerly Railway and Engineering Review.

**Sch Mines Q**—School of Mines Quarterly. \$2; single numbers 50c. School of Mines Quarterly, Columbia University, New York.

**Sci Am**—Scientific American. \$3; single numbers 10c. Munn & Co., 361 Broadway, New York.

**Sci Am S**—Scientific American Supplement. \$5; single numbers 10c. Munn & Co., 361 Broadway, New York.

**Sibley J**—Sibley Journal of Engineering. \$2; single numbers 25c. Sibley College, Cornell Univ., Ithaca, N. Y.

**Stevens Ind**—Stevens Indicator. \$1.50; single numbers 50c. Stevens Institute of Technology, Hoboken, N. J.

**Textile World**—Textile World Record. \$2. Lord & Nagle Co., 144 Congress St, Boston.

**U S Agric Bul**—United States. Dept. of Agriculture. Bulletin. Distributed free of charge. U. S. Dept. of Agriculture, Division of Publications, Washington, D. C.

Contributions from the Bureau of Chemistry, Forest Service and Office of Public Roads are indexed.

**U S Bur For & Dom Com**—United States. Bureau of Foreign and Domestic Commerce. Special agents series. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

**U S Bur Mines Bul**—United States. Bureau of Mines. Bulletin. Distributed free of charge. U. S. Bureau of Mines, Washington, D. C.

**U S Bur Mines Circ**—United States. Bureau of Mines. Miners' circular. U. S. Bureau of Mines, Washington, D. C.

**U S Bur Mines Tech Pa**—United States. Bureau of Mines. Technical paper. U. S. Bureau of Mines, Washington, D. C.

**U S Bur Stand Bul**—United States. Bureau of Standards. Bulletin. Gratis to educational and scientific institutions and to government depositories. U. S. Bureau of Standards, Washington, D. C.

Sold to individuals by the Superintendent of Documents. \$1; single numbers 25c.

**U S Bur Stand Circ**—United States. Bureau of Standards. Circular. U. S. Bureau of Standards, Washington, D. C.

**U S Bur Stand Tech Pa**—United States. Bureau of Standards. Technologic papers. U. S. Bureau of Standards, Washington, D. C.

**U S Sp Cons Rep**—United States. Special consular reports. U. S. Bureau of Foreign and Domestic Commerce, Washington, D. C.

**W Soc E J**—Journal of the Western Society of Engineers. \$3; single numbers 50c. Western Society of Engineers, 1735 Monadnock Blk, Chicago.

**Wis U Bul Eng S**—Bulletin of the University of Wisconsin, Engineering Series. Univ. of Wis., Madison.



# Industrial Arts Index

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- Abattoirs.** See Slaughtering and slaughter houses
- Abbott, Henry**  
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- Abderhalden, Emil, 1877-**  
Abderhalden reaction for the diagnosis of disease. Sci Am S 78:119 Ag 22 '14
- Abietic acid**  
Abietic acid and some of its salts. E. O. Ellingson. Am Chem Soc J 36:325-35 F '14
- Abilene, Kansas**  
Politics and government  
Engineer-manager plan in small Kansas city: abstracts. K. Riddle. Eng Rec 69:130-1 Ja 31 '14; Eng & Contr 41:97-8 Ja 21 '14; Eng N 71:325-6 F 5 '14  
Water supply  
Records of water-works mains and services at Abilene. K. Riddle. Eng N 71:1007 My 7 '14
- Ability, Executive.** See Executive ability
- Abrasive wheels.** See Grinding wheels
- Abrasives**  
Abrasive paper and cloth manufacture; machines used by the Carborundum co. for applying abrasive and cutting the coated stock. il Mach 21:90-1 O '14  
Artificial abrasives; silicon-carbide and aluminous abrasives; their composition, selection and duty. C. Hawke. Eng M 48:262-5 N '14  
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Experimental evidence of molecular structure. diag Sci Am S 77:299 My 9 '14  
Photographic null method for measuring absorption in the ultra-violet. W. R. Ham, R. B. Fehr and R. E. Bitner. bibliog J Fr Inst 178:299-328 S '14
- Abutments.** See Bridges—Abutments
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- Accelerometer**  
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- Accident law**  
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Annual British report on electrical accidents. Elec R & W Elec'n 65:182-4 Jl 25 '14  
Business side of the safety first principle. D. S. Beyer. il Sci Am 110:115-6 F 7 '14  
Fighting the death list. J. E. Schipper. il Automobile 30:1047-52 My 21 '14  
Industrial accident analyses in Massachusetts. Eng Rec 69:239 F 28 '14
- Quarry accidents in the United States during the calendar year 1911. A. H. Fay. U S Bur Mines Tech Pa 46:1-31 '13  
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Engineering and accounting—their relation with special reference to public utilities. J. E. Schofield. Assn Eng Soc J 52:153-64 Mr '14; Discussion. L. H. Allen. 52:281-8 My '14  
Interrelation of financial and operating data. W. A. Staub. J Account 17:1-12 Ja '14  
N. E. L. A. reports and papers on accounting methods. Elec W 63:1322-7 Je 6 '14

**Accounting—Continued.**

Organization of the accounting department of a gas company; with discussion. R. C. James. *Am Gas Light J* 101:1-3 Jl '14

Real estate accounting; and May premiums from sales of capital stock be used for dividends? H. I. Thomas. *J Account* 18: 357-65 N '14

Simplified accounting. J. C. Morrison. *Inland Ptr* 53:433-4 Je '14

Statement of accounts of holding companies. H. C. Freeman. *J Account* 18:157-80 S '14

Sugar mills and their accounts. H. Daspit. *J Account* 18:109-13 Ag '14

Taxes as deferred debits. O. B. Thayer. *J Account* 18:114-7 Ag '14

Treatment of the returnable package in accounts. G. V. W. Lyman. *J Account* 17:427-30 Je '14

Treatment of the returnable package in accounts. W. Jensen. *J Account* 18:118-9 Ag '14

Value of use of color in making and verifying accounting records. E. H. Cooper. *J Account* 17:290-3 Ap '14

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**Study and teaching**

Accountancy laboratory. R. H. Montgomery. *J Account* 17:405-11 Je '14

Business training for the engineer. A. C. Humphreys. *Stevens Ind* 31:241-54 Jl '14; *Abstract, Elec Ry J* 43:366-7 F '14 '14; *Abstract, Am Soc M E J* 36:198-201 My '14

Scientific and educational problems of the accountancy profession. J. C. Duncan. *J Account* 18:260-75 O '14

Students' department, edited by S. Walton. *See* monthly numbers of *Journal of accountancy*

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**Acetanilide**

Estimation of acetanilide and phenacetin in admixture. W. O. Emery. *J Ind & Eng Chem* 6:665-9 Ag '14

**Acetic anhydride**

Action of acetic anhydride on some benzylicene anthranilic acids. J. B. Ekeley and L. C. Slater. *Am Chem Soc J* 36:603-6 Mr '14

**Acetone**

Equilibria in the systems, water, acetone and inorganic salts. G. B. Frankforter and L. Cohen. *Am Chem Soc J* 36:1103-34 Je '14

**Acetyl**

Determination of the acetyl number of oils, fats, etc. E. B. Holland. *J Ind & Eng Chem* 6:482-6 Je '14

**Acetylacetone-urea**

Constitution of acetylacetone-urea. W. J. Hale. *Am Chem Soc J* 36:104-15 Ja '14

**Acetylene**

Physical properties of ethane, ethylene and acetylene. O. Maass and D. McIntosh. *Il Am Chem Soc J* 36:737-42 Ap '14

Physiological characteristics of acetylene, with respect to its use in mining. E. E. Smith. *Sch Mines Q* 35:143-53 Ja '14

Soldering torch employing compressed acetylene. *Il Elec R & W Elec'n* 65:1017 N 21 '14

**Acetylene burners**

New standard light source. L. A. Jones. *Am Gas Light J* 101:251-3 O 19 '14

**Acetylene for lighthouses, buoys, etc.**

Navigating lights for the Panama canal. *Il Sci Am* 110:200-1+ Mr 7 '14

**Acetylene generators**

New acetylene generator. *Il diag Engineer* 118:469-70 N 13 '14

**Acid tanks, vats, etc.**

Leaching-plant construction. S. Croasdale. *Am Inst Min E Bul* 92:1893-6, 1913-5 Ag '14; *Same, Eng & Min J* 98:361-3 N 28 '14

Mastic lining for acid tanks. *Eng Rec* 69:399 Ap 4 '14

**Acid waste**

Design of chemical-resisting wastes. *diags Metal Work* 82:428-9 S 25 '14

Handling corrosive liquids: copper-steel piping and ferrosilicon values for resisting action of acids. G. C. Clifford. *Il Iron Age* 91: 945 O 22 '14

Using tile pipe for chemical wastes. *diag Metal Work* 81:109 Ja 9 '14

**Acids**

Action of acids upon fructose and glucose. M. M. Harrison. *Am Chem Soc J* 36:586-603 Mr '14

Method for handling chemical solutions in quantity. C. C. Phelps. *Il diag Met & Chem Eng* 12:391-2 Je '14

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**Acids, Fatty**

Melting and solidifying points of mixtures of fatty acids and the use of these points to determine the composition of such mixtures. E. Twitchell. *J Ind & Eng Chem* 6:564-9 Jl '14

**Acids, Organic**

Molecular rearrangements in the camphor series. W. A. Noyes and L. F. Nickell. *Am Chem Soc J* 36:118-27 Ja '14

Nitrosulfonic acids of *p*-xylene. W. J. Karslake and R. C. Huston. *Am Chem Soc J* 36: 1244-58 Je '14

**Acoustics, Architectural**

Acoustic effect of fireproofed cotton-flannel sound absorbers. F. R. Watson. *Eng N* 71: 261 Ja 29 '14

Acoustics of auditoriums. F. R. Watson. *bibliog il Il U Eng Exp Sta Bul* 73:1-32 '14

Architectural acoustics, building material, and musical pitch. W. C. Sabine. *Brickb* 23: 1-6 Ja '14

Actinic effect of illuminants in photography. F. M. Steadman. *Illum Eng Soc* 9:265-91 no 3 '14

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**Administrator** as diplomat. E. D. Jones. *Eng M* 47:715-23, 842-8; 48:23-32 Ag-O '14

**Administrator** as scientist. E. D. Jones. *Eng M* 47:163-71, 370-6, 491-7 My-Jl '14

**Adsorption**

Nature of basic lead carbonate. E. Euston. *J Ind & Eng Chem* 6:382-3 My '14

Selective adsorption. E. G. Parker. *J Ind & Eng Chem* 6:531-5 O '14

**Adulterations**

Chemist, a growing factor in merchandizing. A. V. H. Mory. *J Ind & Eng Chem* 6:659-90 Ag '14

Commercial papain and its assay. H. M. Adams. *J Ind & Eng Chem* 6:669-70 Ag '14

Lindquist and other pure textile bills. *Textile World* 46:386-91 Ja '14

Pure textile legislation. *Textile World* 46: 475-9 F '14

*See also* Food adulteration

**Advertisements**

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- Cole, series 10-4 announced. il diags Horseless Age 33:671-3 Ap 29 '14
- Cornellian enters the light-car field. il Automobile 30:923 Ap 30 '14
- Cyclecars and light cars show stamina and speed. il Horseless Age 34:85b-85d J1 15 '14
- Davis four and six, 1915 line. il diag Automobile 31:728-9 O 15 '14
- Delage racers. il Automobile 30:812-4 Ap 16 '14
- Detroit body improvements. il Automobile 31:280-1 Ag 6 '14
- Dodge Brothers' car announced. Horseless Age 34:724 N 11 '14
- Dodge car newest in light field. il Automobile 31:136 J1 16 '14
- Dodge streamline touring car at \$785. il Automobile 31:882-3+ N 12 '14
- Empire continues one chassis and three bodies. il Automobile 31:271 Ag 6 '14
- Empire has improved body. il diags Automobile 31:676-8 O 8 '14
- Empire 1914 features. il Automobile 30:375 F 5 '14
- Enger six to sell for \$1,495. il Automobile 31:854-5 N 5 '14
- English engineers analyze their industry in war atmosphere and make recommendations. L. H. Pomeroy. Automobile 31:794-6 O 29 '14
- Euclid cycle-light car. il Horseless Age 33:447-8 Mr 18 '14
- Fischer light car has long stroke motor. il Automobile 31:117 J1 16 '14
- Franklin uses skew bevel drive. il diags Automobile 31:320-2 Ag 13 '14
- G. B. & S. small car unit power plant. il diags Automobile 31:674-5 O 8 '14
- Grant cuts price \$70 for 1915. il Automobile 31:279 Ag 6 '14

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- Haynes 1915 line includes a new light six. Horseless Age 34:178 J1 29 '14
- Haynes six sells for \$1,485. il diags Automobile 31:456-7 S 3 '14
- Herff-Brooks cars. il Horseless Age 33:595-6 Ap 15 '14
- Herff-Brooks continue six and enlarge four. il Horseless Age 34:212 Ag 5 '14
- Herff-Brooks for 1915—unbroken lines. il Automobile 31:326-7 Ag 13 '14
- How to build a Ford racer. Automobile 31:406-7 Ag 27 '14
- How to handle strange cars. Horseless Age 34:387-8 S 9 '14
- Howard-Lexington models. il Horseless Age 33:592-4 Ap 15 '14
- Hudson light six at a lower price. il Horseless Age 33:907-8 Je 10 '14
- Hudson six now has block motor. il Automobile 30:1226-8 Je 11 '14
- Humber light delivery vans. il diags Engineer 118:460-1 N 13 '14
- Hupmobile, 1915, has left drive—car entirely re-designed. il Automobile 31:372-5 Ag 20 '14
- Imperial streamline four at \$1,085. il diags Automobile 31:852-3 N 5 '14
- Interesting automobile novelties. il Sci Am 110:410 My 16 '14
- Interstate has valves in cylinder heads. il Horseless Age 34:784-5 N 25 '14
- Jacksons for 1915: new streamline four and six. il diags Automobile 31:461-3 S 3 '14
- Jeffery six has high-speed motor and worm drive. il Automobile 31:185-7 J1 23 '14
- Jeffery small six with worm drive. il Horseless Age 34:282-4 Ag 19 '14
- King car for 1915. il Horseless Age 34:63-4 J1 8 '14
- King car with stream line body. il Automobile 31:133-5 J1 16 '14
- Kissel car with detachable sedan top. il Automobile 31:273 Ag 6 '14
- Kissel model at lower price. il diags Horseless Age 34:247-8 Ag 12 '14
- Kisselkar 48-six. il Horseless Age 33:801-2 My 20 '14
- Koehler has improved radiator and gearset. il Automobile 31:410 Ag 27 '14
- Krit adds cabriolet. il Automobile 31:417-9 Ag 27 '14
- Krit company adds a cabriolet body to its line. il Automobile 31:212 J1 30 '14
- Locomobile drops right drive models. il diags Automobile 30:1130-1 My 28 '14
- Locomobile 1915 models. il diags Horseless Age 33:830-2 My 27 '14
- Lozier light six. il diags Horseless Age 34: 61-2 J1 8 '14
- Lozier light six has longer stroke. il Automobile 30:1132-3 My 28 '14
- Lyons-Atlas models: four on a single chassis. il Horseless Age 34:285-6 Ag 19 '14
- Lyons-Knight has streamline body. il Automobile 31:412-3 Ag 27 '14
- McFarlan sixes 300 pounds lighter. il Automobile 31:502-3 S 10 '14
- Marmon continues little six. il Automobile 30: 1272-6 Je 18 '14
- Maxwell racers have no flywheels. L. V. Spencer. il Automobile 30:956-8 My 7 '14
- Maxwell 25 for 1915. il Automobile 31:213-5 J1 30 '14
- Maxwell 25 has electric starter. il Horseless Age 34:210-1 Ag 5 '14
- Mercedes Grand Prix racers. W. F. Bradley. il Automobile 31:153-63 J1 23 '14
- Meteor six sells for \$1,375. il Automobile 31: 499 S 10 '14
- Metz for 1915 has new foredoor body. il Automobile 31:135 J1 16 '14
- Mitchell adds light four to 1915 line. il Horseless Age 34:214-5 Ag 5 '14
- Mitchell light four at \$1,250. il Automobile 31: 220-2 J1 30 '14
- Moline-Knight—separate four-speed gear set. il plan Horseless Age 34:492-3 S 30 '14
- Moline sells for \$2,500. il diags Automobile 31: 551-3 S 17 '14
- Monarch adds light four for \$675. il Automobile 31:500-1 S 10 '14
- Monarch five-passenger six for \$1,400. il Automobile 30:1174-5 Je 4 '14
- Monroe two-passenger car \$460. il Automobile 31:992-3 N 26 '14
- Moon has new four and small six. il diags Automobile 31:321-5 Ag 13 '14
- National offering for 1915. il diags Automobile 31:594-6 S 24 '14
- National six: new model. il Horseless Age 33:75-6 Ja 14 '14
- 1914 car. diags Automobile 30:1-9 Ja 1 '14
- Novel uses for automobiles. il Sci Am 111:412 N 14 '14
- Oakland chassis for 1915. il diags Automobile 31:216-9 J1 30 '14
- Oldsmobile continues four and six. il Automobile 31:507-9 S 10 '14
- Oldsmobile four: model 42. il diags Horseless Age 33:803-4 My 20 '14
- Oldsmobile—light four-cylinder. il diags Automobile 30:835-7 Ap 16 '14
- Overland car for \$850. il Horseless Age 34:459-60 S 23 '14
- Overland model 80 with two unit electric starter. il Horseless Age 34:287-8 Ag 19 '14
- Overland—new streamline has left drive. il diags Automobile 31:316-9 Ag 13 '14
- Overland 81, fully equipped, \$850. il diags Automobile 31:531-3 S 17 '14
- Overland seven-passenger six \$1,475. il Automobile 31:837-9 N 5 '14
- Overland six-cylinder. il Horseless Age 34: 722-3 N 11 '14
- Packard continues two sixes. il Automobile 31:114-5 J1 16 '14
- Packard models show improvement in lamp equipment and lubricating system. il Horseless Age 34:136-7 J1 22 '14
- Partin-Palmer runabout for \$495. il Automobile 31:46 J1 2 '14
- Partin-Palmer 20. il Horseless Age 34:19-20 J1 1 '14
- Paterson adds \$1,495 six—smaller model cut to \$1,095. il Automobile 31:944-6 N 19 '14
- Pathfinder sixes for 1915. il diags Automobile 30:1224-5 Je 11 '14
- Peerless co. announces its new all purpose line. il Horseless Age 34:494-5 S 30 '14
- Peugeot—acme of racing efficiency. il Automobile 30:402-3 F 12 '14
- Pierce-Arrow cars with lower bodies. il Horseless Age 33:944-5 Je 17 '14
- Pierce offers 54 body types. il diags Automobile 31:300-3+ Ag 13 '14
- Pilgrim light car to sell for \$650. il Automobile 31:458-9 S 3 '14
- Pilot 55 horsepower six for \$1,885. il diags Automobile 31:772-4 O 22 '14
- Pilot light six. il Horseless Age 34:620-1 O 21 '14
- Premier continues T-head motor. il Automobile 31:116 J1 16 '14
- Premier-Weidely for 1915. il Horseless Age 34: 394-5 S 9 '14
- Pullman for 1915. il Automobile 31:272 Ag 6 '14
- R. C. H. has streamline body. il Automobile 30:931 Ap 30 '14
- R-C-H model. il Horseless Age 34:685 N 4 '14
- Racing car development has been slow. R. F. Coughlan. Automobile 30:1210-1 Je 11 '14
- Regal concentrates on one model. il diags Automobile 30:1277-9 Je 18 '14
- Remington light car. il Horseless Age 34:456 S 23 '14
- Renault has new radiator design. il Automobile 31:323 Ag 13 '14
- Republic for 1915. il Automobile 31:314-5 Ag 13 '14
- Saxon greatly improved in appearance. il Horseless Age 34:251-2 Ag 12 '14
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- Scripps-Booth luxury at \$775. il Automobile 31:859-61 N 5 '14
- Singer six. il diags Horseless Age 34:522-3 O 7 '14
- Singer six has unusual manifolds. il diags Automobile 31:723-5+ O 15 '14
- Speedwell rotary six. il Horseless Age 33:484-6 Mr 25 '14
- Stearns-Knight four for \$1,750. il Automobile 31:638-41 O 1 '14
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 Stevens runabout for 1915 has disappearing top. *il* Automobile 31:369 Ag 20 '14  
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 Studebakers—15 per cent more power. *il* Automobile 31:268-71 Ag 6 '14  
 Stutz—small four runabout. *il* Automobile 31:633-5 O 1 '14  
 Valves-in-head predominate at speedway. *il* Automobile 30:1106-9+ My 28 '14  
 Velie six \$1,595—two other models. *il* Automobile 31:590-1+ S 24 '14  
 Vinn delivery (\$635) has standard parts. *il* Automobile 31:411 Ag 27 '14  
 Wahl—a new light car from Detroit. *il* Horseless Age 34:176-7 Jl 29 '14  
 Wahl, 1915—complete equipment features. *il* Automobile 31:137 Jl 16 '14  
 White—new body styles; chassis carries many improvements. *il* diags Automobile 31:815-9 O 29 '14  
 White 1915 line—three models. *il* Horseless Age 34:655-6 O 28 '14  
 Willys-Knight car. *il* Horseless Age 33:168-9 Ja 28 '14  
 Winton minimizes vibration. *il* Automobile 31:37-9 Jl 2 '14  
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**Accidents**

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**Axles**

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**Bearings**

Hess-Bright ball bearing plant. *il* diag plan Horseless Age 33:834-7 My 27 '14  
 Hess-Bright co. wins on appeal. Horseless Age 34:598-602 O 14 '14  
 Hess-Bright wins bearing suit appeal. diags Automobile 31:734-5 O 15 '14  
 Making and testing ball bearings: new plant of Hess-Bright mfg. co. *il* plan Automobile 30:910-2 Ap 30 '14  
 Recent experiences with ball bearings. *il* Horseless Age 33:772-5 My 13 '14  
 Semi-floating axle easy on bearings. A. M. Laycock. diags Automobile 31:354-7 Ag 20 '14

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American bodies show progress. *il* Automobile 30:184-7 Ja 15 '14  
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 Cabriolet design for Cadillac chassis. diags Automobile 30:544-5 Mr 5 '14  
 Car bodies of 1914. *il* Automobile 30:13-32 Ja 1 '14  
 Cast aluminum shells for Pierce-Arrow bodies. *il* Automobile 31:540 S 17 '14  
 Convertible body design for runabouts. G. J. Mercer. diags Automobile 31:718-9 O 15 '14  
 Cyclecar and wind resistance. W. B. Stout. *il* Automobile 30:552-3 Mr 5 '14  
 Designing a body for a cyclecar. *il* diags Automobile 30:1012-3 My 14 '14  
 Moline-Knight closed cars. *il* Horseless Age 34:786 N 25 '14  
 New type of streamline body. J. F. Brador. diags Automobile 30:366-7 F 5 '14  
 Refinements in French body design. *il* Automobile 30:908-9 Ap 30 '14  
 Streamline bodies at importers' salon. G. J. Mercer. diags Automobile 30:114-7 Ja 8 '14  
 Two-door Sedan with separate front seats. G. J. Mercer. diags Automobile 31:978-9 N 26 '14  
 Wide doors in new convertible bodies. *il* Automobile 31:313 Ag 13 '14  
 Wind resistance: road tests demonstrate that surface contour of car has bearing on fuel consumption and speed. R. W. A. Brewer. Automobile 30:581-4 Mr 12 '14  
*See also* Automobiles—Tops; Automobiles—Upholstery

**Brakes**

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F. R. P. 100-horsepower chassis. \$5,000. *il* diags Automobile 31:903-5 N 12 '14  
 Passenger car chassis for 1914, including horsepower and mechanical details: specifications tabulated. Automobile 30:40-7 Ja 1 '14  
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 Taxicab co. adopts worm drive. *il* Automobile 30:380 F 5 '14

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Care vs. speed in washing cars. M. C. Hillick. Automobile 30:918-9 Ap 30 '14  
 Cleaning of motors by oxygen in France. Automobile 30:1074 My 21 '14  
 Hints on keeping cyclecars clean. *il* Automobile 30:1066-7 My 21 '14  
 Protecting the investment in car finish. M. C. Hillick. Automobile 31:712-3 O 15 '14

**Clutches**

Clutches—body—special applications. C. M. Linley. *il* Horseless Age 34:74-6 Jl 8 '14  
 Conservative cone clutch construction noted for accessibility. Automobile 30:409 F 12 '14  
 Dog clutch for electric lighting systems. *il* Horseless Age 33:673-4 Ap 29 '14  
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Fashionable colors for the automobile. Horseless Age 33:958-9 Je 17 '14

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Discussion on car control. H. L. Collins. Automobile 30:646 Mr 19 '14  
 Experienced driver formulates a wish for improved motor control. Automobile 31:265-6 Ag 6 '14

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Automobile design and relative motion. A. W. Low. Automobile 30:1328-9 Je 25 '14  
 Automobile drafting room. E. W. Weaver. *il* diags Horseless Age 34:222-4, 256-8, 297-8, 368-70 Ag 5-19, S 2 '14  
 Car of the future will be greatly simplified. W. A. Swan. Automobile 31:258-9 Ag 6 '14  
 Details in car design can be improved. R. F. Chapman. Automobile 30:822-3 Ap 16 '14  
 Economics of design. A. L. Clayden. Horseless Age 33:345-8 F 25 '14  
 Ideal American six. Automobile 31:541-5 S 17 '14  
 Inaccessibility due to low production cost. Automobile 30:774 Ap 9 '14  
 Light car solves the economy problem. W. B. Stout. Automobile 31:404-5 Ag 27 '14  
 Methods of the French designer. Automobile 30:590-1 Mr 12 '14  
 N. Y. S. A. E. argues on ideal car. diags Automobile 30:1231-2 Je 11 '14  
 Participants in Grand Prix embody latest European engineering developments. *il* diags Automobile 31:62-5, 103 Jl 9 '14  
 Principle of the bicycle applied to the motor car: two-wheeled automobile stabilized by means of a gyroscope. *il* diags Sci Am 110:442+ My 30 '14  
 Scientific research—training automobile mechanics. L. H. Pomeroy. Horseless Age 34:697-9 N 4 '14  
 Technical details of Grand Prix cars. *il* diags Horseless Age 34:122-3 Jl 22 '14  
 Tendencies in design for 1915. A. C. Woodbury. Horseless Age 34:688-91 N 4 '14  
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 Varied design in Isle of Man racers. Automobile 30:1327 Je 25 '14  
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Lamplugh's differential with worm drive and silent gear reduction, diag Automobile 31:181-23 '14

**Efficiency**

Charts for determining motor vehicle ability. O: M. Burkhardt. Horseless Age 33:916-9 Je 10 '14

Where power is lost in automobiles. Automobile 31:844 N 5 '14

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Bosch now produces Rushmore systems. il Automobile 31:112-3 Jl 16 '14  
Bosch starting and lighting apparatus. il Horseless Age 34:99-101 Jl 15 '14  
Brush motor will run generator. Automobile 31:582-3 S 24 '14  
Care of lighting and starting systems. A. L. Clough. Horseless Age 33:208-9 F 4 '14  
Demonstration of Bosch lighting system. il diag Horseless Age 34:162-3 Jl 29 '14  
Description of Delco system used on Olds. diags Automobile 30:1069 My 21 '14  
Discussion on papers by A. E. Waller, A. Churchward and F. Conrad. (See Proceedings for November, 1913) Am Inst E E Pro 33:668-91 Ap '14  
Dog clutch for electric lighting systems. il Horseless Age 33:673-4 Ap 29 '14  
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Electric generator for 1914. S. Oxberry. diags Automobile 30:188-97 Ja 15 '14  
Electric transmission displaces clutch, gear-set, starter and generator. il diag Automobile 30:108-10 Ja 8 '14  
Electrical automobile transmission system. R. Babcock. il Sci Am 110:738-4 Ja 24 '14  
Electrical equipment development. Horseless Age 34:140 Jl 22 '14  
Electrical equipment of automobiles. P. M. Heldt. diags Horseless Age 34:530-2, 628-30, 662-5, 692-4, 728-30, 758-61, 790-2 O 7, 21-N 25 '14  
Electrical equipment of gasoline automobiles. B: F. Bailey. Horseless Age 33:181-4, 228-30 Ja 28-F 4 '14  
Electrically operated gear shift to replace the hand lever on the gasoline automobiles. il Elec R & W Elec'n 64:596-7 Mr 21 '14  
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Features of the new Gray & Davis factory. il Horseless Age 33:332-4 F 25 '14  
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Judgment in the care of electric equipment. A. L. Clough. Horseless Age 33:680 Ap 29 '14  
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1913 Cadillac electric system. diags Automobile 30:142-3 Ja 8 '14  
North East front mounted lighting and starting system. il diags Horseless Age 34:525-6 O 7 '14  
North East system for all old cars. il diags Automobile 31:726-7 O 15 '14  
One-wire vs. two-wire systems. W. H. Conant. Automobile 31:304-5 Ag 13 '14

Ordinary electrical equipment: discussion and report. Horseless Age 34:35-6 Jl 1 '14

Overland starting and lighting system. Automobile 30:414-5 F 12 '14

Principles which must be followed in lighting and starting. Automobile 30:883 Ap 23 '14

Production methods at the Remy electric plant. C. S. Ricker. il Horseless Age 33:597-600 Ap 15 '14

Progress in starting and lighting systems. il diags Horseless Age 33:50-4 Ja 7 '14

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Shifting gears by electricity. F. N. Nutt. diag Automobile 30:208-10 Ja 15 '14

Single-wire versus two-wire system; report of electrical equipment division of S. A. E. standards committee. Automobile 31:6-7 Jl 2 '14

6-volt system vs. 12-volt system. Automobile 31:7 Jl 2 '14

Tests show generator increases fuel consumption 3.8 per cent. C. A. Mudge. Automobile 30:962-3 My 7 '14

Trend of ignition practice. H. E. Dey. Horseless Age 33:130-1 Ja 21 '14

Using dry cells efficiently. F. A. Strauss. diags Automobile 30:866-8 Ap 23 '14

Variety of storage battery mountings. L. V. Spencer. il diags Automobile 30:376-9 F 5 '14

Where battery lighting is advantageous. A. L. Clough. Horseless Age 34:493 S 9 '14

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**Equipment and supplies**

Accessories at New York show. Automobile 30:121-3 Ja 8 '14

Air system is lightest and most economical. W. A. Swan. Automobile 30:1062-3 My 21 '14

Anti-freezing mixtures to use. Automobile 31:716-7 O 15 '14

Improved protection against mud and water in the modern car. diag Automobile 30:507-F 26 '14

Knopf bros.' recorder for motor vehicles. il Horseless Age 33:524-5 Ap 1 '14

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New accessories at Chicago. il diags Automobile 30:329-31 Ja 29 '14

Some accessories at Boston show. diags Automobile 30:620-2 Mr 12 '14

Vacuum gasoline feed system. diag Sci Am 111:49 Jl 18 '14

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Boston opens record-breaking show. il Automobile 30:586-9 Mr 12 '14

Chicago show. il diag Automobile 30:289-93, 322 Ja 29 '14

Chicago's 14th annual show opens in four buildings. il Horseless Age 33:145-6 Ja 28 '14

Engineering aspects of Chicago show. il Automobile 30:294-8 Ja 29 '14

England opens museum for historic cars. il Automobile 30:715-9 Ap 2 '14

Exhibitors at New York and Chicago automobile shows. Automobile 31:732-3 O 15 '14

14th annual automobile show. New York. il Automobile 30:101-7 Ja 8 '14

14th National show opens at the Grand Central Palace, N. Y. il Horseless Age 33:5-21, 54 Ja 7 '14

How the M. A. M. handles show problems. C: L. Thompson. Horseless Age 34:608 O 21 '14



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Late arrivals at the Palace show. *il* diags Automobile 30:111-3 Ja 8 '14  
 List of additional accessory exhibitors at New York and Chicago shows. Automobile 31:865 N 5 '14  
 Thirteen car makers exhibit at the Hotel Astor. *il* diags Automobile 30:118-20, 163 Ja 8 '14

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 Stewart vacuum gasoline feeding system. *diag* Horseless Age 33:450 Mr 18 '14  
 Stewart-Warner vacuum fuel feed. *diag* Automobile 30:740 Ap 2 '14  
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**Fenders**

Automobile fender of special design. W. Neubecker. *diags* Metal Work 82:167-8 Ag 7 '14  
 Fenders on motor trucks: protection for pedestrians required by ordinance in Detroit. P. W. Keating. *Eng Rec* 69:139-40 Ja 31 '14  
 Safety fenders useless on trucks. Horseless Age 33:521-2 Ap 1 '14  
 Theory of fender design. Automobile 30:818-9 Ap 16 '14

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Frame loads due to motor torque reaction and change gear reaction. *diags* Horseless Age 33:29-30 Ja 7 '14  
 Pressed steel vs. rolled steel truck frames. *diags* Horseless Age 34:59-60 JI 8 '14

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Automatic gearshift driven by engine made by Grand Rapids show case co. *diags* Automobile 30:421 F 12 '14  
 Automobile rear axle design. M. Terry. Mach 20:406 Ja '14  
 Bungay automatic gear. *il* diags Horseless Age 33:117 Ja 21 '14  
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 Explanation of the planetary transmission. Automobile 30:514-5 F 26 '14  
 Friction drive for cyclecars. *diags* Automobile 30:876-7 Ap 23 '14  
 Gearset designed to give maximum accessibility; invention of H. G. Farr. *diags* Automobile 30:659 Mr 19 '14  
 Gearset of geometrical design is best. W. C. Marshall. Automobile 31:120-2, 174-5+ JI 16-23 '14  
 Globoid worm rear axle drive. *diag* Horseless Age 33:888 Je 3 '14  
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 Internal gear drive axles. V. V. Torbensen. Horseless Age 33:573-4 Ap 8 '14  
 Layout of helical timing gears to replace spur gears. B. L. Madden. *diags* Horseless Age 33:698-9 My 6 '14  
 Magneto flywheel eliminates chattering gear noise. A. L. Clough. Horseless Age 34:258 Ag 12 '14  
 New French worm gear has variable pitch. *il* Automobile 30:468 F 19 '14  
 New Grand Rapids gearshift worked by clutch. *diag* Automobile 30:658-9 Mr 19 '14  
 New positive clutch change gear. *diag* Horseless Age 34:71 JI 8 '14  
 Noises from gear box and rear axle located by overhauls and repairs in German shops. Automobile 30:204 Ja 15 '14  
 Problems involved in mechanical gear changing. A. L. Clough. Horseless Age 33:879 Je 3 '14

Putting on master gears. *diags* Horseless Age 34:165 JI 29 '14  
 Ruetschi gearset keeps perpetual mesh. *diag* Automobile 31:371 Ag 20 '14  
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 System for choosing gear speeds and securing easy and natural shifts under all conditions. F. Achilles. Automobile 31:630-2 O 1 '14  
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- Fabrication of Quebec bridge members—the largest and heaviest ever built. il Eng Rec 69:300-2 Mr 14 '14
- Lackawanna steel co. shops. il Iron Tr R 55:951-4 N 19 '14
- Modern practice in structural shops: special machines developed to save time and labor. C. A. Tupper. il Iron Age 93:1144-6 My 7 '14
- Special shopwork on the heavy members of the Quebec bridge. H. P. Borden. il plan Eng N 71:1070-6 My 14 '14

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- Equipment of a car for bridge testing, Prussian state railways. A. Nixdorff. Ry R 54:104-5 Ja 17 '14

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- Track arrangement adopted for Queensboro bridge, New York city. plans map Eng Rec 70:178-80 Ag 15 '14

- Bridge warnings: committee report of the American railway bridge and building association. diags lty R 55:620-5 N 21 '14

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- American engineering in 1913. Engineer 117:204-5 F 20 '14
- Bridge over lower Ganges river in India: railroad and highway structure 5900 feet long. F. C. Coleman. il diag Eng Rec 70:467-8 O 24 '14
- Bridge work in connection with the elimination of the grade crossings of the Nickel Plate at Cleveland, Ohio. A. J. Himes. il diags Eng & Contr 41:361-5 Mr 25 '14
- Bridges of the year, 1913. Engineer 117:22 Ja 2 '14
- Chicago bridge work by day labor. H. J. McDargh. il diag Eng N 72:434-6 Ag 27 '14
- Collapsible bridges for Philippine rivers. il diag Eng N 71:908-9 Ap 23 '14
- Concrete protection for street bridge. il diag Eng Rec 69:478 Ap 25 '14
- Construction of bridges and buildings in cities in 1914. Munic Eng 46:367-9 Ap '14
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- Curious chapter in bridge history: Pope's flying lever bridge. C. Neilson. il Eng N 71:1374-6 Je 18 '14
- Engineering training based wholly on experience: Indian bridges. K. T. Roberts. il Eng Rec 69:571 My 16 '14
- Long cast-iron arch spans: details of the old Southwark bridge over the Thames river. Eng Rec 69:442 Ap 18 '14
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- Needed reforms in highway bridge construction. H. A. Rice. Eng N 71:349 F 12 '14
- New Havel bridge, Berlin. C. Van Langendonck. il Sci Am S 77:228-9 Ap 11 '14
- Old wooden bridge; poem. Eng N 72:193 Jl 23 '14
- Problem of the North river bridge. G. Lindenthal. il Sci Am 110:309 Ap 11 '14
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- Status of the Mississippi river bridge at New Orleans. il Ry R 54:786-8 My 30 '14

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Erecting long girders with a gallows bent in Kansas City. *il* *diag* Eng Rec 70:161 O 24 '14

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Pneumatic method of building bridge substructures. J. W. Doty. *plans* Ry R 55:149-53 Ag 8 '14

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**Bearings**

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**Wheels**

*See* Car wheels

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- Scoop car for handling railway slides. *il* diags Eng N 72:116-7 JI 16 '14

*See also* Wrecking cars

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- Otto von Graeve, a modern dowser. *Eng & Min J* 97:312-3 F 7 '14

**Division**

- To find the number of integer places in a product or quotient. F. R. Low. *Power* 39:400-1 Mr 24 '14

**Dock elevators. See** Elevators, Inclined**Docks**

- Bulkheads for Boston dry dock. *il* *diag Eng N* 72:1080-1 N 26 '14
- Coaling dock at St. Thomas. C. T. Mason. *il* *plan Sci Am S* 78:104-5 Ag 15 '14
- Concrete docks versus wooden docks. H. S. Taft. *Int Marine Eng* 19:106-7 Mr '14; Abstract. *Am Soc M E J* 36:0131 Je '14
- Dock development at Newport, England. *plan Engineer* 118:65 Jl 17 '14
- Dock facilities of the Hocking Valley Ry. at East Toledo, Ohio. *il* *plans Ry R* 54:563-8 Ap 11 '14
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- Drydocking in canal locks. C. W. Fisher. *Sci Am* 110:328-9 Ap 18 '14
- Electrical equipment of new dock at Hull. *il* *Elec R & W Elec'n* 65:359-62 Ag 22 '14
- Hocking valley coal dock at East Toledo, Ohio. *il* *diags map Ry Age* 57:647-50 O 9 '14
- Honolulu floating dry dock. *il* *diags Int Marine Eng* 19:290-3 Jl '14
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*See also* Roofs

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- Mechanical interpolator, J. E. Smith, diag Eng Rec 69:627 My 30 '14

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- Unidraft drafting fabric, il Mach 20:1078-80 Ag '14; Eng & Min J 98:573-4 S 26 '14

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